

consisting of: AGC-GGG-TCT-ATT-AGA (Seq. ID No. 1); CCA-GGT-GAG-GGT-CGC (Seq. ID No. 2); CGG-TTG-CCC-GAT-TTC (Seq. ID No. 3); TCG-CCT-TCC-TCC-TCT (Seq. ID No. 4); CGG-TCT-CCA-GCG-ATT (Seq. ID No. 5); CAC-AAG-ATG-TCC-GCG (Seq. ID No. 6); GCG-GGC-ACT-AAT-TGA (Seq. ID No. 7); CAT-CCA-CGA-GGA-ACG (Seq. ID No. 8); GTG-TAA-ACC-AGG-TGC (Seq. ID No. 9); ATG-GCT-CCC-AGA-ACC (Seq. ID No. 10) and GAC-AGA-ATC-GAA-GGG (Seq. ID No. 11) and sequences fully complementary thereto and of the same length.

12. (Once Amended) The probe of claim [9] 10, wherein the probe is a peptide nucleic acid.
16. (Once Amended) The probe of claim [15] 10, wherein the probe is labeled with soy-bean peroxidase.
18. (Once Amended) The probe of claim [9] 10, wherein the probe is support bound.
21. (Twice Amended) A set of enzyme-linked probes for detecting, identifying or quantitating *Dekkera/Brettanomyces* yeast in a sample of interest, [The probe set of claim 20,] wherein one or more of the probes comprise a probing nucleobase sequence wherein at least a portion of the probing nucleobase sequence is at least ninety percent homologous to the nucleobase sequences selected from the group consisting of: AGC-GGG-TCT-ATT-AGA (Seq. ID No. 1); CCA-GGT-GAG-GGT-CGC (Seq. ID No. 2); CGG-TTG-CCC-GAT-TTC (Seq. ID No. 3); TCG-CCT-TCC-TCC-TCT (Seq. ID No. 4); CGG-TCT-CCA-GCG-ATT (Seq. ID No. 5); CAC-AAG-ATG-TCC-GCG (Seq. ID No. 6); GCG-GGC-ACT-AAT-TGA (Seq. ID No. 7); CAT-CCA-CGA-GGA-ACG (Seq. ID No. 8); GTG-TAA-ACC-AGG-TGC (Seq. ID No. 9); ATG-GCT-CCC-AGA-ACC (Seq. ID No. 10) and GAC-AGA-ATC-GAA-GGG (Seq. ID No. 11) and sequences fully complementary thereto and of the same length.
23. (Twice Amended) The probe set of claim [20] 21, wherein the probe set is specific for both the detection of *Dekkera/Brettanomyces* yeast as well as other organisms of interest in the same sample.

25. (Once Amended) The probe set of claim [20] 21, wherein some of the probes of the set are blocking probes.
26. (Once Amended) The probe set of claim [20] 21, wherein all probes of the set are peptide nucleic acids.
29. (Once Amended) The probe set of claim [28] 21, wherein the probes are labeled with the enzyme soy-bean peroxidase.
32. (Once Amended) The probe set of claim [20] 21, wherein the probes are support bound.
34. (Once Amended) A set of enzyme-linked probes for detecting, identifying or quantitating *Dekkera bruxellensis* yeast in a sample of interest, [The probe set of claim 33,] wherein the two or more probes specific for *Dekkera bruxellensis* yeast comprise a probing nucleobase sequence wherein at least portion of the probing nucleobase sequence is at least ninety percent homologous to the nucleobase sequences selected from the group consisting of: CGG-TTG-CCC-GAT-TTC (Seq. ID No. 3); TCG-CCT-TCC-TCC-TCT (Seq. ID No. 4); CGG-TCT-CCA-GCG-ATT (Seq. ID No. 5) and CAC-AAG-ATG-TCC-GCG (Seq. ID No. 6) and sequences fully complementary thereto and of the same length.
61. (Twice Amended) A method for detecting, identifying or quantitating *Dekkera/Brettanomyces* yeast in a sample; said method comprising:
  - a) contacting one or more species of yeast in the sample with one or more *Dekkera/Brettanomyces* yeast specific probes, under suitable hybridization conditions, to thereby form a probe/target sequence hybrid; and
  - b) detecting the presence, absence or amount of probe/target sequence hybrid and correlating the result with the presence, absence or number of *Dekkera/Brettanomyces* yeast in the sample[The method of claim 60,];

wherein one or more of the *Dekkera/Brettanomyces* yeast specific probes comprise a probing nucleobase sequence wherein at least a portion of the probing nucleobase sequence is at least ninety percent homologous to the nucleobase sequences selected from the group consisting of: AGC-GGG-TCT-ATT-AGA (Seq. ID No. 1); CCA-GGT-GAG-GGT-CGC (Seq. ID No. 2); CGG-TTG-CCC-GAT-TTC (Seq. ID No. 3); TCG-CCT-TCC-TCC-TCT (Seq. ID No. 4); CGG-TCT-CCA-GCG-ATT (Seq. ID No. 5); CAC-AAG-ATG-TCC-GCG (Seq. ID No. 6); GCG-GGC-ACT-AAT-TGA (Seq. ID No. 7); CAT-CCA-CGA-GGA-ACG (Seq. ID No. 8); GTG-TAA-ACC-AGG-TGC (Seq. ID No. 9); ATG-GCT-CCC-AGA-ACC (Seq. ID No. 10) and GAC-AGA-ATC-GAA-GGG (Seq. ID No. 11) and sequences fully complementary thereto and of the same length.

80. (Twice Amended) A kit for performing an *in-situ* assay that detects, identifies or enumerates *Dekkera/Brettanomyces* yeast in a sample, wherein said kit comprises  
[The kit of claim 72, further comprising]:
  - a) a filter for isolating yeast from a sample of interest;
  - b) culture media for growing the isolated yeast;
  - c) fixation solution for fixing grown yeast;
  - d) [a] hybridization solution [suitable] for imposing suitable *in-situ* hybridization conditions;
  - e) an [soy bean peroxidase] enzyme labeled probe specific for detecting, identifying or quantitating *Dekkera/Brettanomyces* yeast in the sample; and
  - f) one or more wash solutions for removing undesirable components after performing one or more steps of the assay[; and optionally
  - g) an enzyme substrate suitable for generating detectable signal from enzyme activity of the soy bean peroxidase enzyme linked to the probe; or
  - h) a film for detecting signal generated from the enzyme activity].
86. (Once Amended) The probe set of claim [9] 10, wherein the enzyme is selected from the group consisting of: a polymerase, alkaline phosphatase, horseradish peroxidase and soy bean peroxidase.